UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RANDOLPH A. STERN
and
MICHAEL N. BYLES

Appeal No. 2005-0019
Reissue Application No. 09/558,329[1]

ON BRIEF

Before KRATZ, TIMM, and POTEATE, *Administrative Patent Judges.*

TIMM, *Administrative Patent Judge.*

DECISION ON APPEAL

This reissue application comes before us after a previous remand (Remand mailed December 18, 2002). In response to the remand, the Examiner reopened prosecution (Office Action mailed June 3, 2003), after which, Appellants requested reinstatement of the appeal (Supplemental Appeal Brief mailed October 6, 2003).

This reinstated appeal involves claims 1-87, which are all of the claims pending in this reissue application. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 134.

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[1]Application for Reissue of U.S. Patent 5,902,757.

The Supplemental Appeal Brief does not address all the issues on appeal but, instead, incorporates by reference the prior briefs (Supp. Brief, p. 3, n.1). We, therefore, decide the reinstated appeal based on the issues and arguments presented to us in the Brief filed November 29, 2001 (Brief), Reply Brief filed April 12, 2002 (Reply Brief), Supplemental Brief filed October 6, 2003 (Supp. Brief), Answer mailed March 15, 2004, and the Reply Brief filed May 14, 2004 (Supp. Reply Brief).

INTRODUCTION

The claims on appeal are directed to a stitch bonded facing fabric and fluid retaining fabrics, such as incontinent pads, which include the stitch bonded fabric therein. Of the claims directed to the stitch bonded fabric, claim 1 illustrates the original patented invention while claims 30 and 65 illustrate the broadened subject matter sought in the reissue:[2]

1. A stitch bonded facing fabric comprising:

a first layer of hydrophobic felt;

a second layer of hydrophilic felt being adjacent to the first layer so as to define a felt web having an upper surface defined by an upper side of the first layer and a lower surface defined by a lower side of the second layer; and

a plurality of stitch bonding yarns repeatedly extending through the felt web with yarn segments extending across both the upper and lower surfaces of the felt web such that the yarn

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[2]The bulk of the issues on appeal can be resolved by considering the issues as represented by claims 1, 30, and 65. There is, therefore, no reason to discuss, here, the details of the claims directed to fluid retaining fabrics and incontinent pads.

segments extending across the felt web upper surface cooperate to form a top yarn face above the felt web upper surface and the yarn segments extending across the felt web lower surface cooperate to form a bottom yarn face below the felt web lower surface.

30. A stitch bonded facing fabric comprising:

a felt web having an upper surface and a lower surface; and

a plurality of stitch bonding yarns repeatedly extending though the felt web with yarn segments extending across both the upper and lower surfaces of the felt web such that the yarn segments extending across the felt web upper surface cooperate to form a top yarn face above the felt web upper surface and the yarn segment extending across the felt web lower surface cooperate to form a bottom yarn face below the felt web lower surface.

65. A stitch bonded facing fabric comprising:

a first layer of felt having hydrophilic properties and further having an outer surface; and

a plurality of stitch bonding yarns repeatedly extending though the first layer of felt with yarn segments extending across the outer surface of the layer of felt, such that the yarn segments extending across the felt layer outer surface cooperate to form a yarn face above the felt layer outer surface.

The Examiner maintains various grounds of rejection including rejections under 35 U.S.C. § 112, ¶ 1, § 102(b), and § 103(a). To support the rejections based on anticipation and obviousness, the Examiner relies upon the following prior art references:

Sternlieb	4,026,129	May 31, 1977
Kyle et al. (Kyle)	4,128,686	Dec. 5, 1978
Lefkowitz et al. (Lefkowitz)	4,181,514	Jan. 1, 1980
Ott	4,675,226	Jun. 23, 1987
Gillies et al. (Gillies)	5,356,402	Oct. 18, 1994
Taylor	EP 0 261 904	Mar. 30, 1988

The specific rejections maintained are as follows:

1. Claims 30-87 stand rejected under 35 U.S.C. § 112, ¶ 1 as based on a disclosure which is not enabling.

2. Claims 65, 67-69 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Sternlieb.

3. Claims 30-37 and 51-64 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Lefkowitz.

4. Claims 1, 3-9, 12, 14-20, 30, 32-38, 51, 53-56, 58, 59, 61-66, 68, and 69 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Ott.

5. Claims 30, 32-36, 39, 41, 42, 46-51, 53-56, 65, 68, 69, 80, 83, 84, 86, and 87 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Gillies.

6. Claims 2, 10, 11, 13, 21, 22, 31, 52, 57, 60, and 67 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ott.[3]

7. Claims 1, 3-9, 12, 14-20, 23, 26-29, 37, 38, 43, 58, 61-64, 66, 70, 71, 73, 74, 76-79, and 81 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gillies in view of Ott.

8. Claims 10, 11, 21, 22, and 57 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gillies in view of Ott.

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[3]For claims 2, 13, 31, 52, 60, and 67, the Examiner takes Official Notice of certain facts.

9. Claims 25 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Gillies in view of Ott, Lefkowitz and Kyle.

10. Claims 40 and 82 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gillies in view of Taylor.

11. Claims 31, 44, 45, 52, 67, and 85 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gillies in view of Sternlieb.

12. Claims 1-23, 25-39, 41-71, 73-81, and 83-87 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kyle in view of Gillies, Ott, and/or Sternlieb.

13. Claims 24, 40, 72, and 82 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kyle in view of Gillies, Ott, and/or Sternlieb and further in view of Taylor.

We reverse with respect to the rejection under 35 U.S.C. § 112, ¶ 1, but we affirm with respect to the rejections under 35 U.S.C. §§ 102(b) and 103(a). Our reasons follow.

OPINION

The Enablement Rejection

The Examiner has rejected claims 30-87 under 35 U.S.C. § 112, ¶ 1 as based on a disclosure which is not enabling (Answer, p. 3). According to the Examiner, "[t]he dual layer of hydrophobic/hydrophilic felt web critical or essential to the practice of the invention, but not included in the claims is not enabled by the disclosure." (Answer, p. 3). The Examiner cites *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976) in support of the rejection.

"The first paragraph of 35 U.S.C. § 112 requires that the specification of a patent must enable a person skilled in the art to make and use the claimed invention." *In re Wands*, 858 F.2d 731, 735, 8 USPQ2d 1400, 1402 (Fed. Cir. 1988). Although not explicitly stated in § 112, to be enabling, the specification must teach those skilled in the art how to make and use the full scope of the claimed invention without undue experimentation. *In re Wright*, 999 F.2d 1557, 1561, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993).

The purpose of the enablement requirement is to "ensure[] that the public knowledge is enriched by the patent specification to a degree at least commensurate with the scope of the claims." *Crown Operations Int'l. Ltd. v. Solutia, Inc.*, 289 F.3d 1367, 1378-79, 62 USPQ2d 1917, 1924 (Fed. Cir. 2002)(*quoting Nat'l Recovery Techs., Inc. v. Magnetic Separation Sys.*, 166 F.3d 1190, 1196, 49 USPQ2d 1671, 1675 (Fed. Cir. 1999)). Because the inventor is speaking to those of ordinary skill in the art, he or she may begin the discussion at the point at which his or her invention begins. In other words, the inventor need not include in the specification that which is already known and available to one of ordinary skill in the art. *See In re Howarth*, 654 F.2d 103, 105, 210 USPQ 689, 691-92 (CCPA 1981) ("An inventor need not, however, explain every detail since he is speaking to those skilled in the art."). Nor must the inventor necessarily describe how to make and use every possible variant of the claimed invention, for the artisan's knowledge of the prior art and routine experimentation can often fill gaps, provide a basis for interpolation between embodiments, and perhaps even provide a basis for extrapolation beyond the disclosed embodiments, depending upon the predictability of the art.

AK Steel v. Sollac, 344 F.3d 1234, 1244, 68 USPQ2d 1280, 1287 (Fed. Cir. 2003); *see also Wands*, 858 F.2d at 736-37, 8 USPQ2d at 1404 ("Enablement is not precluded by some experimentation such as routine screening."). The question, here, therefore, is whether, with the patent specification as an initial guide, the hypothetical skilled artisan's knowledge of the surrounding art and ability to modestly experiment would have been sufficient to enable him to make and use a stitch bonded facing fabric using a felt web without the dual layer hydrophobic/hydrophilic structure the Examiner states is critical or essential to the practice of the invention.

Unlike the case of *In re Mayhew*, here, the specification does not clearly indicate that the dual layer hydrophobic/hydrophilic felt layer configuration is essential or critical in the practice of the invention, i.e., in a stitch bonded fabric, fluid retaining fabric, and incontinent pad. Particularly, it is noted that, in the Description of the Prior Art, the specification indicates that a typical incontinent pad has a knit or woven facing fabric layer to which is quilted a felt layer. The felt layer is included to provide rigidity to the pad (Patent specification, col. 1, ll. 18-21). The specification then goes on to state that the prior art facing fabric sold under the trademark Comply® is "highly desirable" in incontinent pads because its hydrophobic/hydrophilic dual layer construction wicks away fluids from the face of the fabric (col. 1, ll. 25-35). That the dual layer configuration is highly desirable does not make it essential or critical to the invention. This is especially the case with regard to the claims directed to a stitch bonded fabric rather than the

incontinent pad. Note that in *Mayhew*, the claimed zinc process was wholly inoperative without the step of cooling which was deemed essential to the process.

We are cognizant of the fact that the Summary of the Invention section of Appellants' patent specification characterizes the invention as a fabric including "a felt web having a hydrophobic upper aspect and a hydrophilic lower aspect" and that the only embodiments of the fabric pictured in the Drawings and discussed in the Detailed Description of the Drawings include such hydrophobic/hydrophilic dual layers. In some circumstances, such a narrow characterization of the invention might suffice to show a lack of enablement, but, here, as we discussed above, there is further evidence indicating that fluid retaining fabrics had been made by those of ordinary skill in the art without dual layer fabrics, the felt being used to provide rigidity to the pad.

We are also cognizant of the fact that the dual layer configuration is taught in the specification as being desirable for providing wicking. But wicking is merely taught in the specification as desirable, not as a requirement. Nor do the claims require any particular level of wicking, particularly the claims directed to the stitch bonded facing fabric itself. Thus, the claims need not be enabling for any particular level of wicking.

The Examiner is also concerned that the claims encompass inoperable embodiments (Answer, p. 4-5). But the claims need not exclude inoperative embodiments. What the Examiner must demonstrate is that the number of inoperative combinations is so significant that one of ordinary skill in the art is forced to experiment unduly in order to practice the claimed

invention. *Atlas Powder Co. v. E.I. du Pont de Nemours & Co.*, 750 F.2d 1569, 1576-77, 224 USPQ 409, 414 (Fed. Cir. 1984); *In re Cook*, 439 F.2d 730, 735, 169 USPQ 298, 302 (CCPA 1971). That, however, has not been shown to be the case here.

The specification need not explicitly teach those in the art to make and use the invention; the requirement is satisfied if, given what they already know, the specification teaches those in the art enough that they can make and use the invention without "undue experimentation." *Amgen v. Hoechst Marion Roussel*, 314 F.3d 1313, 1334, 65 USPQ2d 1385, 1400 (Fed. Cir. 2003). The enablement question presented to us here is a legally challenging and close question. However, given that the specification does not clearly indicate that facing fabrics absolutely must contain the dual layers to be functional we ultimately conclude that the evidence is insufficient to support a rejection under 35 U.S.C. § 112, ¶ 1.

Interpretation of "Yarn Face"

Appellants make one overarching argument relevant to each of the rejections over prior art: That the Examiner has failed to properly interpret the phrase "yarn face," a phrase used in each of the claims on appeal, and that no yarn face is shown, disclosed or otherwise suggested in the prior art (Brief, pp.14-15; Reply Brief, pp. 7-10; Supp. Brief, pp. 15 and 18-19; Supp. Reply Brief, pp. 3-7).

Appellants interpret the disputed phrase more narrowly than the Examiner. According the Appellants, "yarn face" is defined in the specification as having very closely spaced or densely packed yarn segments, so dense, in fact, that the "yarn face" is effectively continuous

such that the felt is not generally exposed (Brief, pp. 14-15 referring to patent specification, col. 2, ll. 52-65). The Examiner, on the other hand, concludes that the claims are not so narrow. According to the Examiner, "[n]one of the claims state that the yarn faces must be 'continuous' or even 'effectively continuous.'" (Answer, pp. 25-26).

The main question before us, then, is one of claim interpretation and, specifically, whether the Examiner's interpretation of "yarn face" is reasonable. *See In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1028-29 (Fed. Cir. 1997). We conclude that the Examiner's interpretation is reasonable in light of the evidence. First, we find no definition of "yarn face" in the patent specification at column 2, lines 52-65 or any other portion of the specification as argued by Appellants (Brief, pp. 14-15; Reply Brief, pp. 7-8; Supp. Reply Brief, p. 4). What we do find is a discussion stating that the faces 24 and 26 "are effectively continuous such that web 12 is not exposed thereat, although small gaps or interstices (as at 28) between adjacent yarn segments 18' or 18" may allow viewing of felt surface 20 or 22 upon close inspection." (Patent specification, col. 2, ll. 59-63). That is not a definition, but a further description of the invention and a non-claimed aspect of the invention at that. The more telling description in the patent specification indicates that:

> yarn segments 18' and 18" do not become embedded into the web 12 below surfaces 20 and 22 thereof, but rather extend across the surfaces 20 and 22, and are of sufficient density that yarn segments 18' cooperate to define a top yarn face 24 of fabric 10 above the web upper surface 20 and yarn segments 18" cooperate to define a bottom yarn face 26 of fabric 10 below web lower surface 22 [col. 2, ll. 52-59].

This usage of the word "face" in the specification comports with the ordinary meaning of "face" as a front, upper, or outer surface.[4] Therefore, while the "yarn face" must have a density of yarn which is sufficient to define a front, upper, or outer surface, it need not be "effectively continuous" as further described in the specification.

Our reviewing court has counseled the PTO to avoid the temptation to limit broad claim terms solely on the basis of specification passages and tells us that, absent claim language carrying a narrow meaning, the PTO should only limit the claim based on the specification or prosecution history when those sources expressly disclaim the broader definition. *In re Bigio*, 381 F.3d 1320, 1324-25, 72 USPQ2d 1209, 1210-11 (Fed. Cir. 2004). Here, there is no express disclaimer of the reasonable broader definition. We, therefore, decline to limit "yarn face" to the narrower definition espoused by Appellants.

We conclude that the Examiner has correctly interpreted the phrase "yarn face" and has correctly refrained from reading extraneous limitations from the specification into the claims.

Anticipation by Ott

Claims 1, 3-9, 12, 14-20, 30, 32-38, 51, 53-56, 58, 59, 61-66, 68, and 69 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Ott. None of the claims are argued separately. We select claim 30 to represent the issues on appeal. Claim 30 is directed to a facing fabric with a felt web and stitch bonded yarns forming top and bottom yarn faces.

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[4]See definition 5 for face, Merriam-Webster Dictionary, electronic ed., version 2.0 (2000). A copy accompanies our decision.

Appellants argue that the stitch density for the wiper disclosed by Ott is very low and is not consistent with a yarn face according to Appellants' claimed invention (Brief, p. 18). In support, Appellants cite to column 3, lines 31-34 of Ott which states that "[t]he preferred stitch used in this invention has a length of 3 millimeters and is spaced in the cross web direction at 14 stitch lines per inch or 14 guage [sic]."

The argument is not convincing. The portion of Ott cited by Appellants indicates that the space between the stitch lines is less than 1/14th of an inch. It is reasonable to conclude that the stitch bonding of 140-160 denier polyester stitching yarn in 3 mm stitches at 14 stitch lines per inch using a Maliwatt stitching machine would result in a surface that would appear to the eye to be a textile surface or "yarn face" as claimed. Moreover, Ott states that the stitch bonded product described therein is extremely cloth-like owing to the nature of the material layers having been bonded together by a textile method of stitching (Ott, col. 2, ll. 37-39) and describes the product as having a stitched laminate surface 72 (col. 3, ll. 62; *see also* Fig. 2 at 72). The evidence supports the finding that Ott describes a "yarn face."

We find that there is a sufficient level of evidence to support the anticipation rejection maintained by the Examiner. Appellants have failed to rebut this evidence.

Anticipation by Lefkowitz and Gillies

Claims 30-37 and 51-64 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Lefkowitz. Claims 30, 32-36, 39, 41, 42, 46-51, 53-56, 65, 68, 69, 80, 83, 84, 86, and 87 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Gillies. None of the claims are argued

separately. We select claim 30 to represent the issues on appeal for each of the rejections. While we have reviewed the rejections separately, we will address them together as the issues are sufficiently the same for each.

With regard to each of these rejections, Appellants argue that there is no "yarn face" described in any of the applied references (Brief, pp. 19). We agree with the Examiner that each of the references describes stitch bonded fabrics with the required yarn faces (Answer, pp. 5-7). Each reference describes a stitch bonded felt layer. In each case, the gauge of the stitching is sufficiently dense to form a "face" as claimed. For instance, Example 1 of Lefkowitz describes a felt stitch bonded with yarn of 5 mil diameter in a tricot stitch with a machine gauge of 40 needles per 10 centimeters or 10 chain stitches per inch. Gillies describes a density of 2 to 10 rows per inch with a preference for 5 rows per inch of 150 denier polyester thread (Gillies, col. 5, 23-36). What would appear to the eye in each case is a textile surface or "yarn face" as claimed.

We find that there is a sufficient level of evidence to support the anticipation rejections maintained by the Examiner. Appellants have failed to rebut this evidence.

Anticipation by Sternlieb

Claims 65, and 67-69 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Sternlieb. The claims are not argued separately, therefore, we select claim 65 to represent the issues on appeal.

Claim 65 requires a yarn face on one side of a felt layer. Appellants argue that "Sternlieb fails to teach, disclose or otherwise suggest any yarn face as recited in Appellants' claims." (Brief, p. 16).

We agree with the Examiner that the stitch knitted yarns on the lower surface of the scrim 9 of Sternlieb cooperate to form a "yarn face" as required by claim 65 (Answer, p. 5). The stitches are configured to sit on the surface of the scrim and are of such size, configuration, and density that they are the portions that touch any wearing surface, thus, protecting the underlying structure from abrasion (Sternlieb, col. 3, ll. 3-9). There are 12 stitches per inch of 2 ounce per yard configured in a zig-zag pattern overlying the scrim (Sternlieb, col. 2, l. 57 to col. 3, l. 2, and col. 3, ll. 28-31). The evidence is sufficient to support the Examiner's finding of a density sufficient to form a surface representing a "face" of yarn as claimed.

Obviousness

Appellants advance several additional arguments with regard to the rejections under 35 U.S.C. § 103(a). For instance, Appellants argue that claims 1-29 were allowed in the original patent over the same art now being applied by the Examiner in this reissue proceeding (Brief, p. 20). But claims in a reissue application enjoy no presumption of validity. *In re Sneed*, 710 F.2d 1544, 1550 n.4, 218 USPQ 385, 389 n.4 (Fed. Cir. 1983). As stated in 37 CFR § 1.176 (2000), "[a] reissue application will be examined in the same manner as a non-reissue, non-provisional application." Whether the Examiner has taken a position contrary to the position of the original examiner is immaterial.

Appellants further argue that the Examiner's motivation for modifying the teaching of Gillies so as to replace two steps of stitch bonding with one step of stitch bonding to eliminate a step is not persuasive (Brief, pp. 20-21). We are unconvinced by the argument for the reasons provided by the Examiner in the Answer at pages 28-29. The motivation flows from the teachings and suggestions provided in the relied upon references.

Appellants argue that, with regard to the rejections including Kyle, the Examiner has overlooked that, while Appellants' invention produces a product with its own "yarn face," the Kyle product requires an "upper sheet 25" or "protective sheet 41" in order to provide a comfortable facing fabric (Brief, p. 21). Appellants state that their invention eliminates the need for such separate sheets (*Id.*).

We find no reversible error by the Examiner with regard to the rejections relying upon Kyle (Answer, pp. 11-13). Kyle describes an incontinence pad with a hydrophobic layer and a hydrophilic layer. As found by the Examiner, Kyle indicates that "[t]he two layers 'can be sewn, bonded, quilted or welded' to each other (col. 4, lines 65-66)." (Answer, p. 12). Gillies, Ott, and Sternlieb, as found by the Examiner, all provide evidence that stitch bonding was a well-known method of bonding by sewing layers of nonwoven webs together (Answer, p. 12). We also note that Ott further indicates that it was known in the art to use stitch bonding to create a textile-like surface on a dual layer felt web. We agree with the Examiner that it would have been obvious to one of ordinary skill in the art to stitch bond the hydrophobic and hydrophilic layers of Kyle together as an alternative method of attachment. The secondary references indicate that there are

benefits to using stitch bonding such as lower cost while maintaining a textile-like feel, durability and cohesive strength (*see e.g.*, Ott, col. 2, ll. 37-45; Gillies, col. 5, ll. 7-11 and 23-27).

Additionally, Appellants challenge the Examiner's use of Official Notice in combination with Ott in rejecting claims 2, 13, 31, 52, 60, and 67 (Supp. Brief, p. 17). The Examiner states in the rejection that Official Notice is taken of the fact that "it is common and well known in the art to employ scrims to reinforce nonwoven materials." In response to the Appellants' demand for evidence, the Examiner directs Appellants' attention to Sternlieb and Lefkowitz which both describe the use of a reinforcing scrim in a stitch bonded product (Answer, p. 30). Appellants do not challenge the Examiner's evidence in the Supplemental Reply Brief. Moreover, we note that Kyle describes the use of a scrim as well (Kyle, col. 3, ll. 18-23 and col. 8, l. 37: scrim 33 shown in Fig. 5). There is ample evidence supporting the finding of the Examiner.

As a final point, we note that Appellants base no arguments upon objective evidence of non-obviousness such as unexpected results. We conclude that the Examiner has established a *prima facie* case of obviousness with respect to the subject matter of claims 1-87 which has not been sufficiently rebutted by Appellants.

CONCLUSION

To summarize, the decision of the Examiner to reject claims 30-87 under 35 U.S.C. § 112, ¶ 1 is reversed, but the decision to reject claims 1, 3-9, 12, 14-20, 30-39, 41, 42, 46-69, 80, 83, 84, 86, and 87 under 35 U.S.C. § 102(b) and claims 1-87 under 35 U.S.C. § 103 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

PETER F. KRATZ
Administrative Patent Judge

CATHERINE TIMM
Administrative Patent Judge

LINDA R. POTEATE
Administrative Patent Judge

) BOARD OF PATENT
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) AND
) INTERFERENCES

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